

Mon Tue Wed Thur Fri Sat Sun

Date: _____

Question No. 01

Statistics:

Collection of numerical data, organization and analysis of data is called statistics.

Types of Statistics:

1) Descriptive Statistics:

Descriptive statistics deals with collection of data, presentation of data and summary of data.

Types:

- Measure of central tendency
- Measure of dispersion

2) Inferential Statistics:

Statistics inference is art of drawing in which we draw inference about population with the help of sample.

Nazir Notes

Signature _____

Mon Tue Wed Thur Fri Sat Sun

Date: _____

population is a unit of aggregate.

Types of populations

• Finite:

The population which are accountable. For example, number of students in class or universities in Pakistan.

• Infinite:

The population which are unaccountable. For example, number of stars in the sky.

Samples:

Selected part of population which represents the characteristics of whole population is called a sample.

Question No. 02

Data:

Measurements or observations that are collected as a source

Nazir Notes

Signature

of information are called data.

Types of Data:

1) Qualitative Data:

The data which describes the characteristics or attributes of a variable is called qualitative data.

For example:

color, qualification.

2) Quantitative Data:

The data which can describe in numerical form or quantity is called quantitative data. For example number of students in class.

Types:

• Discrete Data:

The data which can assume only specific values. For example, number of students,

Mon Tue Wed Thur Fri Sat Sun

Date: _____

number of accidents on the road.

• **Continuous data:**

The data which can describe each and every value is called continuous data. For example, age, height, speed.

3) **Primary Data:**

The data which cannot undergo in any statistical treatment is called primary data.

4) **Secondary Data:**

The data which can undergo in any statistical treatment is called secondary data. It is also called second hand data.

For example,

The best example of secondary data is group data.

Mon Tue Wed Thur Fri Sat Sun

Date: _____

Question No. 03

Sol: $X = \{10, 20, 30, 40, 50, 60\}$

X	D	U	
10	0	0	$\Sigma x = 210$
20	10	1	$\Sigma D = 150$
30	20	2	$\Sigma U = 15$
40	30	3	
50	40	4	
60	50	5	

1) $\bar{x} = \frac{\Sigma x}{n}$

$$\bar{x} = \frac{210}{6}$$

$$\boxed{\bar{x} = 35}$$

2) $\bar{x} = R + \frac{\Sigma D}{n}$

$$= 10 + \frac{150}{6}$$

Mon Tue Wed Thur Fri Sat Sun

Date: _____

$$\bar{x} = \frac{60 + 150}{6} = \frac{210}{6}$$

$$\boxed{\bar{x} = 35}$$

3)

$$\bar{x} = A + \frac{\sum U}{n} \times h$$

$$= 10 + \frac{15}{6} \times 10$$

$$= 10 + \frac{150}{6} = \frac{60 + 150}{6}$$

$$\bar{x} = \frac{210}{6}$$

$$\boxed{\bar{x} = 35} \text{ Ans}$$

Nazir Notes

Signature _____

Question No. 04

C-I	f	x	fx	D	fD	U	fU
1-15	7	8	56	1	7	0.066	4.62
16-30	9	23	207	16	144	1.066	14.94
31-45	3	38	114	31	93	2.066	7.98
46-60	2	53	106	46	92	3.066	7.32
61-75	5	68	340	61	305	4.066	8.132
$\sum f = 26$		$\sum x = 90$		$\sum fx = 823$		$\sum fU = 42.992$	

$$1) \bar{x} = \frac{\sum fx}{\sum f}$$

$$= \frac{823}{26}$$

$$\boxed{\bar{x} = 31.65}$$

$$2) \bar{x} = A + \frac{\sum fD}{\sum f}$$

$$= 7 + \frac{641}{26}$$

$$= \frac{182 + 641}{26} = \frac{823}{26}$$

Nazir Notes

Signature

Mon Tue Wed Thur Fri Sat Sun

Date: _____

$$\boxed{\bar{x} = 31.65}$$

3)

$$\bar{x} = A + \frac{\sum f_u}{\sum f} \times h$$

$$= 7 + \frac{42.992}{26} \times 15$$

$$= 7 + \frac{644.88}{26}$$

$$= \frac{182 + 644.88}{26}$$

$$= \frac{826.88}{26}$$

$$\boxed{\bar{x} = 31.80}$$

Nazir Notes

Signature _____